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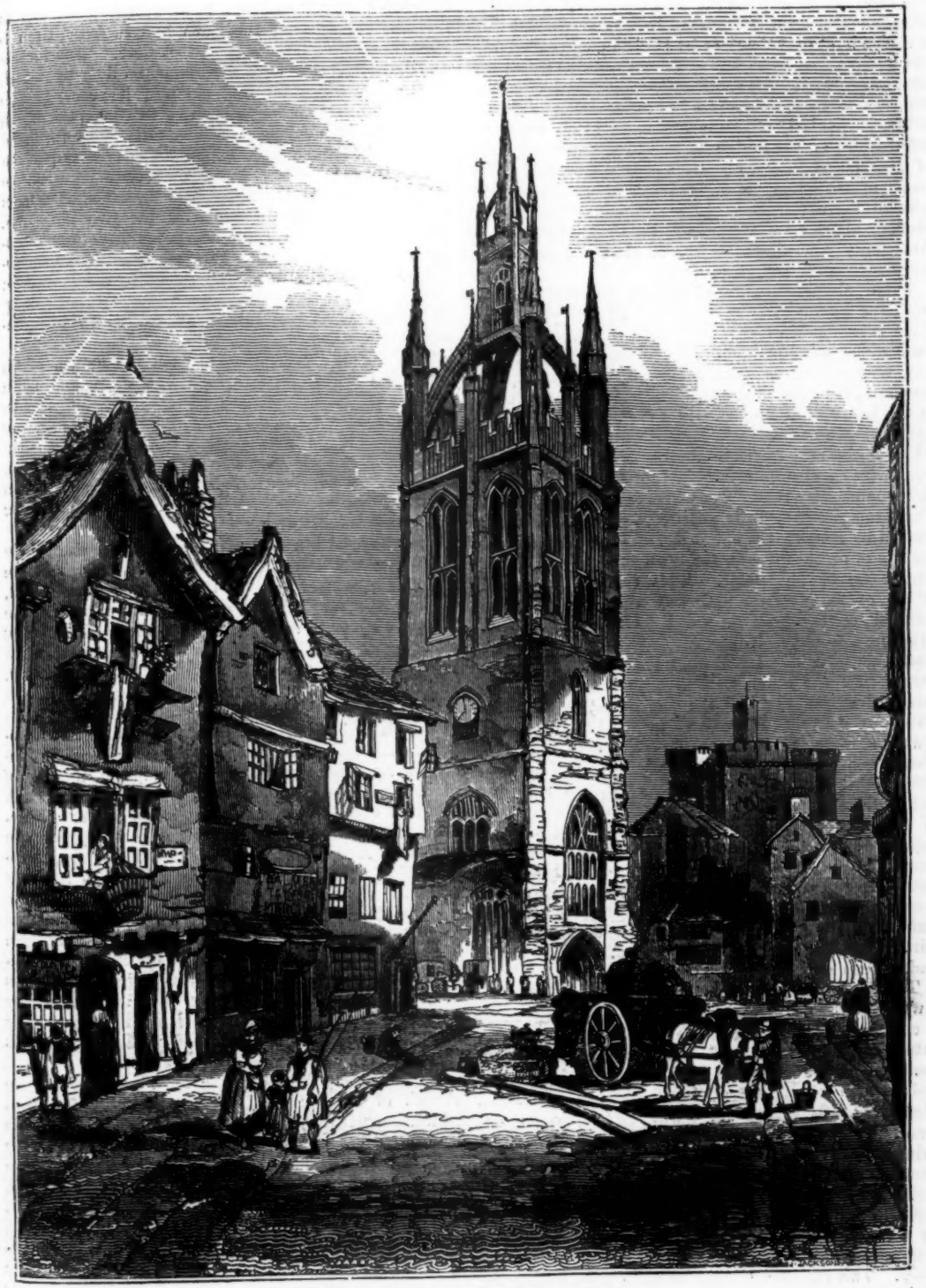
NEWCASTLE-UPON-TYNE.



[St. Nicholas Church, Newcastle-upon-Tyne.]

This borough, sea-port, and county-town occupies the north bank of the river Tyne, over which there is a handsome stone bridge connecting the place with Gateshead in the neighbouring county of Durham. Newcastle is of great antiquity, and of considerable note in history. It was established as a military station of the Romans by Agricola, in the year 80. Here was the eastern termination of the wall built by order of Hadrian, in the year 120, to defend the Roman province from the incursions of the Caledonians, and which has been traced passing the west door of St. Nicholas's church. The town is supposed to have originated from a bridge built over the river by Hadrian, and called from his family name Pons Ælii,—a denomination which was also taken by the town. Roman coins and other antiquities have been discovered at Newcastle at different times, particularly after the floods in 1771, when the foundations of the bridge having been damaged, coins of Hadrian and other emperors were discovered at the bases of the piers; and, in 1810, in excavating the ground for the erection of a new county court, two Roman altars were disinterred, together with coins of Antoninus Pius, the successor of Hadrian, as well as other remains of antiquity.

From the evacuation of Britain by the Romans until the Conquest little is known of this place; but there is no doubt of its having been a town of importance under the Northumbrian monarchs of the Saxon line, who appear to have been succeeded in the possession of it by the Danes; and, at the Conquest, it was in the hands of the Scots. It was then known by the name of Munk-ceastre or Monk-chester, a designation which it obtained from the number of religious foundations which had been established in it during the Heptarchy, and some remains of which are still in existence. The Scots were speedily expelled, and a castle being erected by Robert, the eldest son of the Conqueror, on the site of an old fortress, the town thence took its present name of Newcastle. This castle occupied an extent of three acres, and was a fortress of great strength, having been defended by a deep ditch and two massive walls. Many historical recollections are connected with this structure, which has now fallen to decay. Of the outer wall nothing remains but the principal entrance, called the Black Gate; the inner wall was entirely demolished in 1811. The great tower, a massive square structure, is standing; it is about eighty feet high, and its exterior walls measure about fourteen feet in thickness, and extend sixty-two feet by fifty-four. There are no fire-places in any part of this edifice, except in a few small rooms which appear to have been cut out of the walls in later times. The dungeon was used from time immemorial, until the erection of the present Court-house, as the county prison during the assizes. A very bold circular staircase ascends to the summit of the tower; and adjoining, on the east side, is a chapel of most beautiful and curious architecture.

The town itself appears to have been surrounded by a wall so early as the reign of King John, who granted a charter to the inhabitants; but the oldest charter extant is said to be that of Henry III., who, in 1239, bestowed on the townsmen the right of digging in the vicinity for coal and stone. In the reign of Edward I., Newcastle was taken and burnt by the Scots; and among their prisoners was one of the burgesses, who, being a rich man, paid his ransom, and on his return home commenced rebuilding the fortifications, to the expense of which he largely contributed: they were completed by the inhabitants in general, encouraged by the king, who united to the town the hamlet of Pampedon, or Pandon, which was included within the walls. This rampart is said to have been twelve feet high, and eight in thickness, strengthened with several towers and furnished with seven gates, besides which the place was defended by a wide ditch. An incidental notice of this wall occurs in a deed of Edward I., who granted to the black friars or Dominicans the right to make a passage through *the new wall* to their garden. At a later period, Leland said of this wall, "The strength and magnificens of the waulling far passeth all the waulls of the cities of England, and most of the townes of Europe." Newcastle, at this early period, had become one of the principal commercial ports of the kingdom; and it appears from authentic documents that the revenues of the town had, in 1280, risen to 200*l.* a year—a large sum at that time. This income was derived chiefly from the municipal duty upon coal, the use of which for fuel did not, however, become general until long subsequently to that period. In 1346, seventeen ships and 314 mariners were furnished by this port for the siege of Calais, on the requisition of Edward III. The situation of Newcastle, upon the borders of Scotland, exposed it to the repeated attacks of the Scots before the union of the two kingdoms. When they invaded England, previously to the outbreaking of the civil war, they took possession of Newcastle. It was afterwards garrisoned by the Royalists; but, in 1664, it was again, after a long siege, taken by the Scots, who were then in alliance with the Parliament.

The town is about ten miles from the mouth of the Tyne, but the river is there a fine, deep, and noble stream; its banks are steep, and the ground rises on each side to a considerable height. Ships of 300 or 400 tons burden may reach the town itself; larger vessels deliver their cargoes and take in their lading at Shields; and the river forms so secure and commodious a haven, that danger rarely if ever ensues in it either from storms or shallows.

The town within and without the walls extends for more than two miles along the river, and about one mile from the river towards the north and north-west, rising along the hill and crowning its summit. The houses are, with very few exceptions, built either of stone or of brick; the streets near the river, which were formed at a remote period of time, are narrow, irregular, and steep, and the buildings on the slope of the hill much crowded together: but with its progress in wealth and importance the town has received proportionable additions and improvements; several of the streets have been widened, and a great number of modern ones have been erected, especially in the north and west quarters of the town. These newer quarters are laid out with skill and taste, and in a superior style of architecture; and the spirit of improvement, with the increasing prosperity of the place, bid fair to render it equal in convenience and elegance to the first towns of the kingdom. The Boundary Commissioners, in their Reports (Part iv. p. 178,) state, "We are led to believe that the condition of the town of Newcastle is generally flourishing; we have observed numerous buildings of a very good and respectable, and some of a very superior description, either in progress or very recently completed; and we were informed by the parish officers that the town was increasing."

Of the public buildings, the most remarkable is the church of St. Nicholas, noted as one of the most admired structures of the kind in the island. This fine church crowns a bold eminence which rises abruptly from the surface of the river to near the centre of the town. From this commanding position it presents, in every point of view, a most striking specimen of architectural skill. "It is," says the writer of 'A Descriptive and Historical Account of the Town and County of Newcastle-upon-Tyne,' "an object of pride and boast to the inhabitants; and it never fails, by its singular and original combinations of magnificence,

delicacy, and ingenuity, to enchant and gratify every stranger who has 'an eye to see and a soul to feel.'" The building appears to have been originally founded in the fourth year of William Rufus (1091), by Osmund, Bishop of Salisbury; but it does not seem to have been completed in its present state until 1359, the first structure having been destroyed by fire in 1216. The building is 240 feet long, 75 wide, and the height of the tower 193 feet 6 inches. This structure has been compared to an imperial crown. The tower is square, and its four angles are decorated with lofty and highly-ornamented spires, from whose bases spring four segments of arches, which at their intersection, twenty feet above the battlements, support a lantern of exquisite lightness and beauty, with smaller spires than those of the tower at its angles, while from its centre rises a lofty and well-proportioned pinnacle, which, terminating with a fine vane, finishes this extraordinary structure. This tall and elegant pinnacle, which is hollow within, is built with stones only four inches in breadth, and indeed most of the stones throughout the tower are such as the workmen might have carried under their arms. There are three other churches, and several chapels of ease, besides fifteen places of worship belonging to dissenters. Newcastle has several fine public buildings. The Exchange was built in 1658, and has since been much improved; the second floor is used as a Guildhall, and contains, among other portraits, those of Earl Eldon, Lord Stowell, and the late Admiral Lord Collingwood, all natives of this town; as was the late Dr. Hutton. That very original artist and engraver, Bewick, one of whose pupils furnishes our present wood-cut, was born near and lived at Newcastle.

The new courts of justice for the county of Northumberland, the Mansion House, the Theatre, the Assembly Rooms, and the Library, are the other more important public buildings. The new bridge over the Tyne was finished in 1781, at a cost of 30,000*l.*; it is a very strong, handsome structure, of nine elliptic arches, and extends 600 feet in length. To the south and east of the Exchange there is a spacious area, which, being well wharfed up and faced with freestone, forms the quay, which is one of the largest and longest in any part of Great Britain. Newcastle is honourably distinguished by its institutions for the advancement and diffusion of knowledge, for the number of its establishments for gratuitous instruction and for relief to the afflicted.

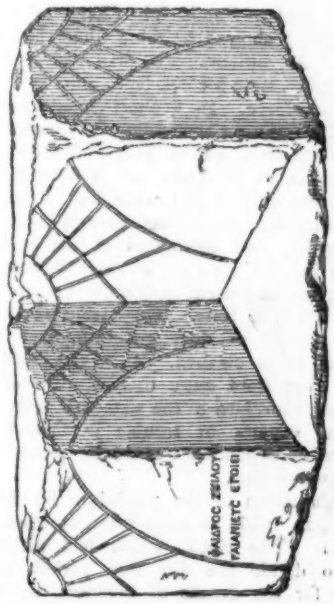
The importance and prosperity of Newcastle have chiefly emanated from the coal trade, for the prosecution of which the town is admirably situated on the bank of a navigable river, and in the midst of one of the most extensive coal-fields in Great Britain, or perhaps in the world. Coal is scarcely mentioned in history until after the grant of Henry III., relative to the right of digging for coal, in 1239; but, thirty-six years after, the commerce in this article had become very considerable, and it continued to increase, notwithstanding that the prejudice against using coal for fuel was so great, that, in 1306, it was prohibited in London under severe penalties. This prohibition was subsequently removed, and it appears that the trade in coal between Newcastle and London was authorized by government in 1381. In 1699, two-thirds of the coal-trade of the kingdom belonged to this town, whence 300,000 chaldrons a year were sent to the metropolis; and 600 vessels of 80 chaldrons burden each, together with 4500 men, were employed in carrying on this commerce. The quantity of coal shipped from Newcastle, in 1791, was 404,367 chaldrons sent coastwise, and 45,702 over sea; in 1801, 452,092 sent coastwise, and 50,401 over sea; in 1811, 634,371 sent coastwise, and 18,054 over sea; in 1821, 692,321 sent coastwise, and 48,097 over sea; and in 1826, 800,437 sent coastwise, and 62,620 over sea.

In the number of vessels belonging to its port, Newcastle is inferior only to London: the number was, in 1829, 987 ships of 202,379 registered tonnage. Its foreign trade seems also increasing. The British vessels which entered from foreign parts in 1831 were 422,—tonnage, 68,975; and the foreign vessels, 323,—tonnage, 33,402; whereas, in 1826, the British vessels from foreign parts were only 300, and the foreign vessels only 226.

The borough has returned members to Parliament ever since the reign of Edward I. From 1705 to the passing of the Reform Bill, the elective franchise was exercised by the corporation and freemen, who amounted to 4000. In 1831, the number of houses in the borough was 5232, of which 2961 were taxed at 10*l.* a-year and upwards; the annual value of the real property was 123,790*l.*; and the population amounted to 42,760; but the borough, as enlarged by the Reform Bill, contains 7120 houses, and a population of 53,613, according to the Boundary Reports.

CLOCKS.

The first mode of measuring the lapse of time was undoubtedly the observation of the sun's motion. In almost all climates the morning, noon, and evening would be readily distinguished. The Babylonians appear to be the first who obtained greater accuracy by the invention of the sun-dial, at what epoch is not exactly known, but it was evidently at a very remote period. The dial of Ahaz, mentioned by Isaiah, must have existed eight centuries before the Christian era; and it is a curious example of the little communication which existed in ancient times between the nations of the world that this instrument was unknown to the Greeks until about 640 B.C. One of these Grecian sun-dials is preserved in the British Museum. It is conjectured that it served to show the hour in one of the cross-ways of Athens. The following is a representation of it; the Greek inscription, placed on the exterior of the two western faces, states, that "Phædrus, the son of Zoilus, a Pæonian, made this:"—



A few centuries later, the Egyptians, in order to distinguish the hours at night and in cloudy weather,

invented the clepsydra, or water-clock; probably a mere float, with a rod fixed upon it like a mast, and placed in a vessel of water with a hole at the bottom: as the water ran out the float descended, and figures marked on the rod, at proper intervals, showed the number of hours elapsed. The sand-glass, made like the modern hour-glass, was also used in ancient times, as appears from a bas-relief representing the marriage of Peleus and Thetis, in which is the figure of Morpheus holding a glass of this construction.

The period of the invention of wheel-clocks is involved in uncertainty, some authors stating it to have been as early as the fourth, and others as late as the tenth century. The cause of this disagreement is that the word clock has been used to designate the clepsydra and hour-glass; and probably the clocks mentioned by old chroniclers, and set down by modern authors as proofs of the antiquity of the invention, were some modifications of these instruments. Such, probably, was the clock sent by Paul I. to Pepin le Bref, in 760.

The French historians describe a clock sent to Charlemagne, in 807, by Haroun al Rashid, the Caliph of the East, which struck the hours by the falling of twelve brass balls upon a bell. It had also twelve horsemen, who came out, one at a time, at separate doors, which they opened and closed again. This clock must certainly have been furnished with some kind of wheel-work, but the moving power is said to have been the fall of water.

In the twelfth century, clocks moved by weights appear to have been used in Italy, and early in the fourteenth one was put up in London by Wallingford, a monk, who died in 1325, which was said to show the time with accuracy. In the year 1344, Giacomo Dondi erected at Padua his celebrated clock, which, besides the hour of the day, showed the course of the sun in the ecliptic, and the places of the planets. The celebrity acquired by this clock was the cause of great advancement in the art; almost every court in Europe was desirous of possessing a similar work, and skilful mechanics were in consequence induced to turn their attention to the manufacture. Its author was dignified with the surname of Horologius, which is still borne by his descendants, the chief of whom, the Marchese Dondi-Orologio, was lately, and most likely still is, a resident at Padua.

A story told of Louis XI. (King of France from 1461 to 1483) shows that the art had then made great advances. A gentleman who had lost a great deal of money at play, stole a clock belonging to the king, and hid it in his sleeve. In a short time, the clock, which continued to go notwithstanding its removal, struck the hour, and the theft was of course discovered. Louis, as capricious in kindness as in tyranny, not only pardoned the culprit, but made him a present of the clock. All these instruments, though much superior to the clepsydra, and celebrated at the period of their invention for the accuracy of their movements, gave, according to our present notions, but coarse approximations to the true time. They were retarded greatly when a particle of dust got into their works, and accelerated when cleaned. As to the minute divisions of time, they were quite useless. Tycho Brahe, an astronomer who lived in the sixteenth century, and who spared no expense or trouble in their construction, found that no dependance could be placed upon them for his observations.

The adaptation of the pendulum by the celebrated Huygens, in 1657, at once brought clock-making to perfection. The clock, which had hitherto merely served to divide the day into periods of sufficient accuracy for the details of business, or the hours of eating and sleeping, now became the means of recording the minutest lapses of time, of showing the smallest irregularities in the apparent motion of the sun and planets, and of reducing astronomy to the exactness of mathematical reasoning. Increased skill in workmanship has, of course, produced greater accuracy, but the pendulum is still the means of giving it effect.

[To be continued.]

Cacao.—The 'Account of the Cacao-Tree and its Products,' in No. 127 of 'The Penny Magazine,' has induced a Correspondent to send us the following statement of what he considers the best mode of preparing the cacao-bean for use. Cacao, in the nut, is sold in his neighbourhood (300 miles from London) for 1*s.* 2*d.* per lb., and it may be roasted in any family at the cost of an additional penny. It is very desirable that it should be roasted by the consumers themselves, at intervals not exceeding five days, as the shopkeepers do not roast frequently enough, and the strength and aroma of cacao, as well as that of coffee, cannot long be preserved after the bean has been roasted, and still less after it has been ground. It may be roasted in a shallow dish, either in an oven or over an open fire; but, for retaining the flavour of the cacao, the oven is best. The pellicle should be roasted separately, and ground or pounded with the nut. Three-quarters of an ounce of this powder, added to a pint of hot water, and boiled for a short time, will afford a good and cheap breakfast for one person. Milk and sugar may be added in the usual manner. The quantity of cacao employed would cost but three farthings; but, no doubt, an ounce of the powder would make the beverage more nourishing and palatable. Our correspondent, however, thinks that *cacao-paste* is the best and most economical form in which the article can be employed, when sold for 1*s.* 4*d.* per lb., as is the case in some shops, though not in country places. Three-quarters of an ounce, dissolved in boiling water, makes a pint of cacao at once, without further trouble or delay, and of better quality than that from the powder.

Similes from Firdousee.—The readers of the 'Penny Magazine' having, in a former Number, been introduced to the Persian poet Firdousee, will, perhaps, be pleased to see the following similes, imitated from that author. They are both taken from the 'Asiatic Journal' for 1825.

If Envy's bitter plant in Eden grew,
Manured with virgin honey at its root,
And moistened ever with ambrosial dew,—
Acrid and poisonous still would be its fruit.

Bright thoughts and sparkling language, unexpressed,
Conceal'd or slumbering in the human breast,
Are like a diamond lodged within the mine;
Darkness and dross its dazzling beams confine:
Withdrawn from thence, its liberated ray
Blazes abroad, and emulates the day.

MUSIC.—(*Continued.*)

We have now found fault enough with everything and everybody, and it remains to try to suggest the means of improvement without further digression. But this we cannot do without effort; for at this moment, as we sit down to write, comes the identical fiddler, who is always to be found at — o'clock on ——— evening in ——— street, and favours us once more with doleful airs, no two notes of which are in tune except by *compensation of errors*, that is, his strings being wrong and his fingers also, it happens that between the two he is occasionally right, one correcting the other. We conquer this temptation to write once more against street music, and proceed.

The unpractised ear universally prefers the human voice to any instrument, and perhaps we may say that a great portion of the really musical world does the same. This is lucky for our purpose, because the cultivation of the voice happens to be the only method by which the great mass of our fellow-countrymen can ever hope to attain any knowledge of music. Singing in parts is delightful, when the voices accord well; and there are countries where the most humble peasant can have this gratification in his own family, or with his neighbours. But before singing can be learnt, the

reading of music must be acquired, and for the most part by the individual himself, without instruction. And here lies the great difficulty. The country might be inundated by the cheapest music, but it would all be so much waste paper, unless efficient means were provided to enable every one to teach himself the meaning of all the dots, bars, lines, &c. And here some sounding medium must be provided: for nothing will enable us to put a sound on paper. *Cheap* instruments must precede *cheap* music; no matter how simple their construction, or how limited their power of execution: a guitar (fretted) with one string would be sufficient, just to enable the learner to study the different intervals. But an instrument of some sort there must be; and, therefore, to the consideration of the practicability of introducing one we will here confine ourselves, observing only that, after this, the reading of music would be more easily learnt than the reading of English.

As it would be rather dry work learning to read music upon a simple *monochord*, (as the guitar abovementioned must be called,) and as it would be very desirable to enable the beginner to play the simple airs which he knows as soon as possible, some other mode must be thought of. At first it struck us that the Pan's pipe would answer the purpose, being cheap and easily learnt; but, unfortunately, this instrument is seldom in tune, and it wants the semitones: the introduction of pipes for these among the others would render the instrument difficult to perform upon, but without the semitones very little can be done.

Here then is a fair field for all mechanics who have been, or are, employed in the construction of musical instruments, to exert their ingenuity. And we promise any one who can succeed in producing a satisfactory result, under the following conditions, to make his name and invention known from one end of the country to the other, without any expense to him, so soon as we shall be satisfied that the conditions are fulfilled, or even that most of the difficulties are overcome:—

1. It must be cheap, and not very liable to get out of order. By cheap we mean that, for a moderately large demand, the price must be under five shillings.

2. It must be in perfect tune, and well tempered, by which we do not merely mean that it *can* be played in tune by one who knows how, as is the case with a flute or violin, but that any one must be able to produce as perfect an interval as the instrument will give, as in the case of the piano or organ.

3. Its range must be at least two octaves, with all the semitones complete, beginning with the lowest c (under the lines) of the treble clef. If it could be made to extend so far as two octaves and a half, it would be all the better.

4. It must admit of simple airs being played upon it, such as are most commonly sung—of such a degree of difficulty, for example, as the well-known air 'Life let us cherish.'

5. It must not be very loud or full, the main object being to teach true intervals, which would be better done by a note of the quality of a tuning-fork than that of an organ-pipe.

In addition to the above, it would be desirable that the instrument should be struck or drawn with a bow, rather than blown, for the convenience of trying the voice, but perhaps this may be unattainable. The production of such an instrument as described above, or at least approaching to it in good qualities, might do much to lay the foundation of a correct musical taste in this country.

Upon considering the various means which might be used to reach the end, we find ourselves stopped by not knowing the extent of the practical difficulties which would occur. The Pan's pipes might certainly be provided with additional tubes, or an apparatus might be contrived to lengthen or shorten those of the diatonic scale, by a *fixed* quantity. Then the question of expense is the only one which arises. To answer the end with reeds must be almost impossible, as each instrument would require trial and adjustment. But is the reed the only material which could be used? could not thin pipes of sonorous wood or metal be made to supply their place?

Anything of the organ species would be liable to get out of tune: but were it not for this, a small barrel organ, containing some very simple lessons, the notes to which should be contained in an accompanying book of instruction, would, to a certain extent, answer the purpose.

A common toy (we forget the name), in which plates of glass are struck by a hammer, is not only always out of tune, but the glass is apt to yield harmonics, which confuse the fundamental note, and the tone is not sufficiently pure. But if springs, attached to a sounding-board, to be struck with a hammer, could be made to produce a steady tone for a few instants, in any way similar to that of a tuning-fork, the end would be very well answered, provided the machine were not too expensive.

The instruments which are usually constructed will do but little towards effecting any change:—First, because they are too dear; secondly, because most of them cannot be played in tune, except by a proficient, which renders them no guide for an uncultivated ear; thirdly, because, being adapted for great execution, and requiring a good deal of practice, more time and trouble is thrown away upon them than most people can afford, or than is requisite for mere elementary purposes. Not that the time is lost to those who wish to become musicians, and have sufficient natural capabilities; but to all the rest, the mastery of the violin, flute, or clarionet, would be like spending time and money in building piers when there is not enough of either to finish the bridge. A simple instrument, such as we hope some will endeavour to construct, would be the mere stepping-stone over the gulf which separates written symbols from sounds; and when the object is accomplished might be abandoned.

But, it may be asked, why not at once recommend the adoption of some of the instruments already in use; which, if all were put in the way of hearing correctly played, would do much to fix correct ideas of musical intervals? Unfortunately, there is litt'e hope of any such result being speedily attained. Where a taste is to be awakened which, if it exist at all, is in a very dull state, it is necessary that the stimulus should neither cost much money nor trouble, and that it should be applied to the particular point on which there are the strongest popular predilections. The makers of musical instruments have not yet attempted anything at once cheap and sufficient, and the greater part of musical books of instruction are very obscure. But if we were to recommend an instrument to be made sufficiently cheap, if possible, for the working classes of this country, it should be the guitar. The difficulty of tuning should be got over by selling separate tuning-forks for each string, and if this could be done there would be the following advantages:—Though the guitar admits of very little, either of tone or execution, yet that little is what is technically called *harmony;* that is, proper combinations of notes can be struck at once, and in this it would be superior to the flute or clarionet, which only produces *melody;* that is, the simple consecutive notes which make up the *air*. Next, the little that an ordinary player can ever hope to do on the guitar can be soon done; a very few lessons, with a proper book of instructions, would suffice to enable the beginner to please himself and others. This is hardly so much the case with any other instrument,

and much more than compensates (for our purpose) the limited and feeble character of the one of which we speak. Thirdly, it can be played in tune so soon as the strings are put in tune; in which we would aid the learner by the addition above-mentioned. Fourthly, being entirely under the command of the finger, it admits, all things considered, of great expression. And, what is the best of all, it is a good accompaniment for the voice; and we do not see why, with half a year of self-instruction, a very ordinary singer might not render his performance a source of pleasure to himself and others.

If the demand could be made to exist, we feel convinced that the price of these instruments might be very much cheapened. We do not, of course, allude to the highly-polished, six-stringed instrument, with its endless screws for adjustment, and its mother-of-pearl bordering: but to something of a more humble degree of finish, which might, nevertheless, discourse very tolerable music in proper hands. What is there in the condition of the Spanish labourer which should enable him to possess something beyond the reach of the English one? Nothing but this:—that the Spaniard will buy it, if it be manufactured for him at a moderate rate, and the Englishman does not, as yet, care about it.

We have heard that, some time ago, if not now, musical societies were not uncommon in our large manufacturing towns. We should be glad to know whether this is still the case, and what sort of music was most prevalent?

And here we must stop; for there would be little use in pointing out what steps might be taken if something were attainable which has not hitherto been attained. If ever the day should come when musical knowledge is almost universal, the public will feel the benefit in more ways than one. In Molière's well-known comedy of the 'Bourgeois Gentilhomme,' the music-master, who does not think small things of his art, wants to prove to his pupil that all disorders and wars come of people not learning music, as follows:—

Music-master.—"Does not war come of the want of union among men?"

M. Jourdain.—"Very true."

Music-master.—"And to make all men learn music, would not that be the way to put them all in *harmony* together, and bring about universal peace all over the world?"

M. Jourdain.—"You are quite right."

Without going so far as to think that an orchestra would be a good commission to settle a disputed boundary, or the meaning of a treaty, we are of opinion that social quiet would be much promoted by the introduction of an amusement on which no question, either of politics or theology, can arise. The hours which are spent in society, among all ranks, are, for the most part, filled up with fierce politics, or fiercer criticism on public and private character. The community wants a relaxation from the continual discussion which occupies it, and which renders us all mental gladiators, intent upon nothing but the attack or defence of opinions. We are for the march of mind; but we think it would march better to music.

THE ISLAND OF MILO.—No. II.

The ruins of the ancient theatre on this island have escaped the notice even of the correct and minute Tournefort, and few modern travellers mention them, though they are not less considerable than many of the remains elsewhere, which have been so often and particularly described, whilst the site they occupy is one of almost matchless beauty. On the side of a conical hill, somewhat lower than the summit on which the town stands, and a little to the north-west of it is a natural hollow of an elliptic form, and round this the ancients built their stone seats in ranges above each other, leaving these to be backed by the hill itself, and the whole open to the bright heavens above them. From this lofty position, on the face of the rock, the view is enchanting. The blue waters of the Mediterranean, at a great depth below, roll at the feet of the spectator, and stretch far away before him, dotted with numerous islands. Nothing intercepts the view. Whatever may have been the character of the representations and amusements that attracted the ancients to this spot, the exquisite spectacle of nature here presented, the purity of the air, the glorious brilliancy of the sun, and the transparency of the atmosphere, so seldom clouded in this happy clime, ought at once to have filled their souls with happiness, and raised them to the contemplation of the Giver of all good.

In the greater part of the hollow the seats have been broken down and removed by the natives to build their houses and stables; but one side of the theatre is still tolerably perfect. Scattered over the arena, half buried with earth or covered with weeds, were several curious pieces of wrought marble, some of which the peasants dug up and sold to a French man-of-war while we were at Milo. The theatre, or rather amphitheatre, must have been small. The annexed engraving, from a sketch made on the spot, may convey some idea of what remains of it. The building on the top of the hill behind it is a ruinous, crumbling fort, erected in comparatively modern times. The island in the distance, of which only a part is seen, is Argentiera, the Cimolus of the ancients, which, as well as Milo, was celebrated for producing chalk and a species of earth admirably suited to the purposes of washing linen, &c.*

Another of our excursions was to old Milo, which, in the time of Tournefort, was the *town* of the island, and contained a population of 5000 souls. When we visited it there were only three or four families of the poor islanders remaining on the spot—the houses, which had been nearly all two stories high, built with stone, in a very neat style of architecture, and which evidently dated from the period when the Venetians possessed this and other islands of the Archipelago, were all in ruins; and among these rent walls and roofless edifices, a temporary, scanty, and not very welcome colony had taken up its abode. This colony or garrison consisted of about fifty Sphactiotes or Greek mountaineers from Candia, who had been engaged by the new government in the Morea (if we can apply the name of government to the anarchy that existed in Greece in 1827) to defend the Milotes in case the Turks should make a descent on the island. Had such a descent been made, from the smallness of their numbers, the men from Candia could have afforded no protection—they would have taken to their boats and run away, leaving the islanders to be massacred, as had already happened in the beautiful island of Scio and elsewhere. They were, in fact, just strong enough to oppress those they came to protect. They levied contributions, in their own way, on the defenceless, impoverished Milotes, and yet were never satisfied, but continually quarrelling and recurring to deeds of violence and insult. We had already read and heard much of the very bad character which both the Turks and Greeks of Candia bear throughout the Levant, and certainly what we here saw of the Greeks of that place was not calculated to prepossess us in their favour. As we arrived among them in the ruined town they were nearly all firing their rifles and pistols like madmen in the narrow street. One of our party had a very narrow escape from a rifle-ball. They were exceedingly fine-limbed men, but in countenance they

* This earth is still used by the natives of Milo instead of soap.

were at once cunning and ferocious; their dress (something like the Albanian) was very picturesque, and, in most instances, fine and costly, but, almost without an exception, they were disgustingly dirty. Several of them were suffering under the malaria fever, to which nearly all the low land of Milo is now exposed.

Tournefort mentions, that in his time, this town, which is situated in the plain at the distance of about a mile and a half from the head of the port, was extremely unhealthy, on account of vapours arising from salt marshes and other stagnant waters in its vicinity, and from the scarcity of good wholesome water. He adds two other causes of insalubrity: *i. e.*, the exhalations arising from the sulphur and minerals which enter very largely in the formation of the island, and the dirty habits of the people who permitted all sorts of filth to accumulate in the streets. The first of these two causes has, we suspect, little to do with fevers; but no one can doubt the pernicious influence of the second of them. The unhealthiness of this spot induced the Milotes to remove the town to the top of the island, which, altogether, in 1827, did not contain a resident population of 500 souls. Other influences, besides those of malaria, must have contributed to this awful decline of prosperity, and these are to be found in the notoriously oppressive and every way vicious government of the Turks. When Tournefort was at Milo, he found extensive olive-groves, large tracts of the island well cultivated with corn, barley, sesame, and cotton,—the hills round the port were covered with vines; and melons, French beans, and a variety of other vegetables were profusely grown. When we visited the island, nearly all this had disappeared, and the diminished population, with fruitful lands around them, seemed generally to be suffering great poverty and privation. The small quantity of cotton still cultivated was of that brilliant white hue for which this product of Milo was celebrated in ancient times.

Tournefort also informs us, that the island, in his time, contained eighteen churches and thirteen monasteries, of all of which he gives the names and situations. Now, there is only the little church or chapel on the hill side, where we witnessed a funeral, together with three others equally poor and mean. The caloyers*, whose loss is scarcely to be regretted, had entirely disappeared.

Between the old town in the plain and the head of the bay or port, there are natural warm baths, which we entered by crawling through some passages (formed partly by nature and partly by art) in the side of a rock. These passages lead into two subterranean chambers or caves of inconsiderable size, and in each of these a spring of warm water, exceedingly salt to the taste, wells out and fills a shallow basin. The heat of this water is much less than that of the hot spring in the subterranean passage called the Bath of Nero, at Baiæ in Italy, in which we had often seen an egg boiled in three minutes; whereas, into these springs at Milo we could put our hands without inconvenience. The warmth of the atmosphere of the caverns, however, was greater than that of a Turkish vapour bath, and made us perspire most profusely. Still nearer to the shores of the bay other hot mineral water is cast up through the sand in little streams, some of which are boiling hot. These springs do not seem to be confined to any particular spot, and even bubble up under the waters of the sea. We were somewhat surprised, two or three days after our arrival, whilst bathing, to come suddenly to a place where the temperature of the water of the bay was very materially changed, and, in swimming towards shore and getting into shallow water, we found the sand so hot in several places that we could not bear to touch it with our feet. The same thing, however, had before happened to us in several parts of the bay of Naples, near to the roots of Mount Vesuvius, and the other craters of that volcanic district, on the coast of Sicily, in the neighbourhood of Mount Etna, and among the Lipari Islands.

The island of Milo is, indeed, wholly volcanic; and the fire that raised its plains above the sea, and projected its lofty mountains, still burns in most places a very little below the level part. Sulphur of an excellent quality is produced all over the plains; and there are large beds of alum of various kinds, and all of the best quality, which were dug with great profit until the Turks loaded them with such heavy taxes and fees that the islanders shut up the mines and abandoned that branch of trade altogether. It is curious to observe, when any trade has once been turned from its course, how difficult it is to bring it back into its old channels; but the now organized government of Greece may in time derive benefits from these minerals, as also from the beds of iron ore which are extensive in several districts of the island.

On the exterior coast of Milo, several springs of hot mineral-water ascend through the sands into the sea in much greater volume than those we observed in the bay. At one point, just on the edge of the shore, where these waters can be caught before they mix with the sea, they are taken medicinally by the islanders, who, at our time, seemed scarcely to have any other medicine, or, indeed, any other physician.

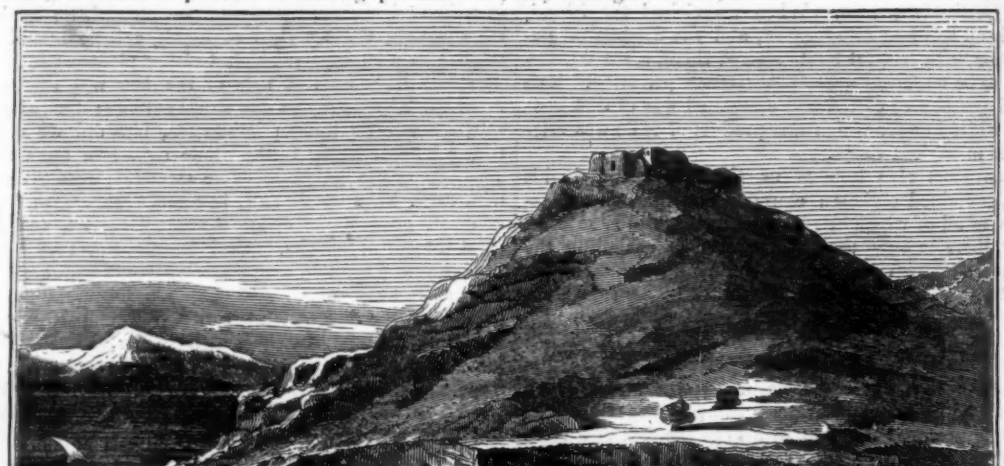
One of our excursions was to the lofty summit of Mount Saint Elias. Crossing the beautiful bay, nearly in a direct line from the anchorage-ground, we landed on a rough, solitary strip of beach, a little inland of which was a curious, small, but rather picturesque lake. The loneliness on this side of the bay was extreme. Near the lake there was one small cottage; but, except this, we saw no human habitation, nor did we meet with a human being in the whole course of our walk. The sides of the mountain, as we ascended, were covered with thick brushwood, and, in many places, with trees of small growth,—with sweet-scented myrtle, and the most beautiful shrubs. Still higher up, they were broken into fine, bold crags, among which we were told that, as in those of Corsica, Sardinia, Candia, and one or two of the larger islands of the Archipelago, the mouflon, or wild sheep, is still to be found. We, however, certainly saw nothing of the sort; and, on inquiring afterwards from some of the old inhabitants, we did not receive *very* satisfactory assurances that they had ever seen any. Animal life, indeed, of all sorts, seemed as scarce as human life in Milo; for, save lizards and small snakes, some scanty colonies of crows, and a few asses and mules, we scarcely saw any living thing there. Our great reward, which, in truth, was the only one we counted upon, when, after a most fatiguing process of walking, crawling, and climbing, we reached the top of this mountain, was the view it afforded,—a view much more extensive than those from the present town and the ancient amphitheatre. Nearly every inch of Milo, with its inferior mountains, its slopes and valleys, and magnificent port, lay spread at our feet like a map*; and, on the blue sea, some close to us and some spreading far away, we could see with peculiar distinctness the islands of Antimilo, Argentiera, Siphanto, Serpho, Policandro, and a score more of the "fairy Cyclades," which literally "shine in the sea," as Horace describes them.

The Candiote garrison did not at all improve on longer acquaintance; and we never went to the old town without being disgusted by their filth, turbulence, and insolence. But this was not all. Two nights before we sailed from the port, an open Turkish boat,

* Monks.

* The entire circumference of Milo is calculated at about fifty miles. Its form is almost that of a circle,

coming from and going to some place in the Archipelago still in possession of the Mussulmans, was driven, in consequence of contrary winds and currents, and the unskilfulness or carelessness of those on board, to the back of the island of Milo. When the Candiotes, who had sentinels at different points, learned this, they rushed to the spot, and, though the boat was small and contained only eight individuals, two of whom were women and three children, who all stated their circumstances and pleaded for mercy, they savagely fired into her and killed one Turk and wounded another, and also a little boy. They then dragged them on shore, and announced their valorous triumph by firing off guns and pistols. It was near midnight, and we were smoking our cigars on deck when we heard these discharges, which, for a moment, induced us to believe that a Turkish force had landed on the island. Our surprise and abhorrence were great on learning the next morning what had really happened, and, moreover, that the Candiotes considered their Turkish prisoners as slaves, and were trying to sell them as such among the Greeks of Milo. In consequence of these proceedings, the officers of the Dutch sloop-of-war, which was by this time the only armed ship left in the bay, together with ourselves, had a long discussion with these savages, the Greek who kept the coffee-house, and who spoke both Italian and English, acting as our interpreter. We represented how people in the circumstances of those in the Turkish boat were treated by all civilized nations; but we could awaken in them no feeling of shame for what they had done; and when we spoke of the unchristian, abominable practice of making prisoners of war slaves, the only answer we could get was, that they did by the Turks as the Turks did by them. It was in vain we explained to them that it was in consequence of these and their other barbarous practices that the hearts of all Europe were set against the Turks, and that the great Christian powers would (as they did a few months after) interfere with a strong hand to prevent all such excesses. They still only answered that the Turks, when they took them, made slaves of them, and that they would make slaves of the Turks, and keep or sell their present prisoners as they chose. The Dutch captain did not consider himself authorized to take more energetic measures. In the course of the day, however, the French vice-consul made the Candiotes deliver up the two Turks who were wounded, and whom he had carried to his own house. We subscribed together for the price demanded for one of the unfortunate women, and the keeper of the coffee-house bought the other for ten Spanish dollars, or about two pounds sterling. He said he would keep her until an opportunity occurred of imparting her and her companions' situation to their friends, who would, in all probability, find means, through some English or French ship-of-war, to remit a ransom for them all. Whether this happened, or how the Candiotes treated their captives, we know not, for the next day, most heartily sick of these barbarians, we left Milo, and never returned. It must be added, however, in justice to the poor native Greeks of the island, that they were a mild, inoffensive people, with a good deal of natural talent, and of that natural gracefulness of manner and carriage which so remarkably distinguishes all their race.



[Remains of the Amphitheatre at Milo.]

*** The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.
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